IN THE CLAIMS

1. (Previously presented) A method of treating pancreatitis in a mammalian subject comprising administering to said subject an effective amount of an amylin or an amylin analog, wherein the amylin analog has amylin agonist activity.

2. (Previously presented) The method of claim 1 wherein pain caused by pancreatitis in said mammalian subject is relieved.

3. (Previously presented) The method of claim 2 wherein administration of the effective amount of said amylin or amylin analog simultaneously treats pancreatitis and the pain associated therewith.

4. (Previously presented) The method of claim 2 wherein said subject has been diagnosed with pancreatitis.

5. (Previously presented) The method of claim 3 wherein said subject has been diagnosed with pancreatitis.

6. (Previously presented) The method of claim 1 wherein said subject is a human.

7. (Previously presented) The method of claim 2 wherein said subject is a human.

8. (Previously presented) The method of claim 3 wherein said subject is a human.

9. (Previously presented) The method of claim 1 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

10. (Previously presented) The method of claim 2 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

11. (Previously presented) The method of claim 3 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

12. (Previously presented) The method of claim 2 further comprising administering to said subject an analgesic.

13. (Previously presented) The method of claim 3 further comprising administering to said subject an analgesic.

14. (Previously presented) A method of improving a treatment for pancreatitis in a mammalian subject comprising administering to said subject an amylin or an amylin analog in addition to an agent or regimen used to treat pancreatitis, wherein said amylin analog has amylin agonist activity.

15. (Previously presented) The method of claim 14 wherein said agent is clinically used to treat pancreatitis.

16. (Previously presented) The method of claim 14 wherein said subject is a human.

17. (Previously presented) The method of claim 14 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

18. (Previously presented) The method of claim 14 further comprising administering to said subject an analgesic.

19. (Previously presented) The method of claim 14 wherein the agent is a pancreatic enzyme.

20. (Previously presented) The method of claim 14 wherein the regime includes a low-fat diet.

21. (Withdrawn) The method of claim 1 wherein said amylin analog has the amino acid sequence: $^{1}A_1$-X-Asn-Thr-^{5}Ala-Thr-Y-Ala-Thr-^{10}Gln-Arg-Leu-B_1-Asn-^{15}Phe-Leu-C_1-D_1-E_1-$^{20}F_1$-G_1-Asn-H_1-Gly-$^{25}I_1$-J_1-Leu-K_1-L_1-^{30}Thr-M_1-Val-Gly-Ser-^{35}Asn-Thr-Tyr-Z (SEQ ID NO:2) wherein

A_1 is Lys, Ala, Ser or hydrogen;

B_1 is Ala, Ser or Thr;

C_1 is Val, Leu or Ile;

D_1 is His or Arg;

E_1 is Ser or Thr;

F_1 is Ser, Thr, Gln or Asn;

G_1 is Asn, Gln or His;

H_1 is Phe, Leu or Tyr;

I_1 is Ala or Pro;

J_1 is Ile, Val, Ala or Leu;

K_1 is Ser, Pro, Leu, Ile or Thr;

L_1 is Ser, Pro or Thr;

M_1 is Asn, Asp, or Gln;

X and Y are independently selected amino acid residues having side chains which are chemically bonded to each other to form an intramolecular linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy, or aralkyloxy; and provided that when

(a) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Phe, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Ser, and M_1 is Asn;

(b) A_1 is Lys, B_1 is Ala, C_1 is Ile, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(c) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Thr, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(d) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Pro, L_1 is Pro, and M_1 is Asn;

(e) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Asn, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Ser, L_1 is Pro, and M_1 is Asn; or

(f) A_1 is Lys, B_1 is Thr, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is His, H_1 is Leu, I_1 is Ala, J_1 is Ala, K_1 is Leu, L_1 is Pro, and M_1 is Asp; then one or more of A_1 to M_1 is a D-amino acid and Z is not amino.

22. (Withdrawn) The method of claim 14 wherein said amylin analog has the amino acid sequence: $^{1}A_1$-X-Asn-Thr-^{5}Ala-Thr-Y-Ala-Thr-^{10}Gln-Arg-Leu-B_1-Asn-^{15}Phe-Leu-C_1-D_1-E_1-$^{20}F_1$-G_1-Asn-H_1-Gly-$^{25}I_1$-J_1-Leu-K_1-L_1-^{30}Thr-M_1-Val-Gly-Ser-^{35}Asn-Thr-Tyr-Z (SEQ ID NO:2) wherein

A_1 is Lys, Ala, Ser or hydrogen;

B_1 is Ala, Ser or Thr;

C_1 is Val, Leu or Ile;

D_1 is His or Arg;

E_1 is Ser or Thr;

F_1 is Ser, Thr, Gln or Asn;

G_1 is Asn, Gln or His;

H_1 is Phe, Leu or Tyr;

I_1 is Ala or Pro;

J_1 is Ile, Val, Ala or Leu;

K_1 is Ser, Pro, Leu, Ile or Thr;

L_1 is Ser, Pro or Thr;

M_1 is Asn, Asp, or Gln;

X and Y are independently selected amino acid residues having side chains which are chemically bonded to each other to form an intramolecular linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy, or aralkyloxy; and provided that when

(a) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Phe, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Ser, and M_1 is Asn;

(b) A_1 is Lys, B_1 is Ala, C_1 is Ile, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(c) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Thr, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(d) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Pro, L_1 is Pro, and M_1 is Asn;

(e) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Asn, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Ser, L_1 is Pro, and M_1 is Asn; or

(f) A_1 is Lys, B_1 is Thr, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is His, H_1 is Leu, I_1 is Ala, J_1 is Ala, K_1 is Leu, L_1 is Pro, and M_1 is Asp; then one or more of A_1 to M_1 is a D-amino acid and Z is not amino.

23. (New) The method of claim 1 wherein 0.1 μg to 1 mg of said amylin or said amylin analog is administered to said mammalian subject in a single, divided, or continuous dose.

24. (New) The method of claim 14 wherein 0.1 μg to 1 mg of said amylin or said amylin analog is administered to said mammalian subject in a single, divided, or continuous dose.

25. (New) The method of claim 1 wherein about 2 μg to about 8 mg per day of said amylin or said amylin analog is administered to said mammalian subject.

26. (New) The method of claim 14 wherein about 2 μg to about 8 mg per day of said amylin or said amylin analog is administered to said mammalian subject.